```
CLEAR STORAGE 1     ,008015,022026,030037,044,049,053053N000000N00001026                                1
CLEAR STORAGE 2     L068116,105106,110117B101/I9I#071029C029056B026/B001/0991,001/001117I0?              2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039             ,0010011040              3

                         FORTRAN COMPILER -- ARITH PHASE SIX -- PHASE 38                          PAGE    1

 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101               JOB   FORTRAN COMPILER -- ARITH PHASE SIX -- PHASE 38
 102               CTL   6611
 103         *
 104         * OPTIMIZATION OF TEMPORARY STORAGE AREAS TAKES PLACE.
 105         * THESE AREAS ARE ASSIGNED DEFINITE LOCATIONS IN STORAGE.
 106         *
 107         * ON ENTRY X1 IS AT THE BOTTOM OF THE BOTTOMMOST ASSIGNMENT
 108         * STATEMENT IN LOW CORE, X2 IS AT THE AT THE BOTTOM OF THE
 109         * BOTTOMMOST ASSIGNMENT STATEMENT IN HIGH CORE, AND X3 IS
 110         * THE BOTTOM OF THE BOTTOM OF THE BOTTOMMOST STATEMENT IN
 111         * HIGH CORE THAT IS NEITHER AN ASSIGNMENT NOR IF STATEMENT.
 112         *
 113         X1     EQU   89                                                    0089
 114         X2     EQU   94                                                    0094
 115         X3     EQU   99                                                    0099
 116         *
 117         * STUFF IN THE RESIDENT AREA
 118         *
 119         PHASID EQU   110  PHASE ID, FOR SNAPSHOT DUMPS                    0110
 120         GLOBER EQU   184  GLOBAL ERROR FLAG -- WM MEANS ERROR             0184
 121         SNAPSH EQU   333  CORE DUMP SNAPSHOT                              0333
 122         IMOD   EQU   690  INTEGER MODULUS -- NUMBER OF DIGITS            0690
 123         MANTIS EQU   692  FLOATING POINT MANTISSA DIGITS                  0692
 124         LOADNX EQU   700  LOAD NEXT OVERLAY                               0700
 125         CLEARL EQU   707  CS AT START OF OVERLAY LOADER                   0707
 126         *
 127               ORG   838                                                          0838
 128         LOADDD EQU   *&1          LOAD ADDRESS                            0838
 129    838  BEGINN BCE   DONE,X2,.                                       8  0838  B S51 094 .          4
 130    846         SBR   SX2,0&X2                                        7  0846  H N31 0!0            4
 131    853         MN    0&X3                                            4  0853  D 0?0                4
 132    857         MN                                                    1  0857  D                    4
 133    858         SAR   SX3                                             4  0858  Q N34                4
 134    862         SBR   SX1,0&X1                                        7  0862  H N37 0|0            4
 135    869         MCW   86,S86                                          7  0869  M 086 N66            4
 136    876         MCW   MANTIS,NUMWID                                   7  0876  M 692 N40            5
 137    883         MN    KPZERO,NUMWID-2                                 7  0883  D N41 N38            5
 138    890         A     KP2,NUMWID  WASN'T THIS DONE A LONG TIME AGO?   7  0890  A N42 N40            5
 139    897         C     NUMWID,IMOD                                     7  0897  C N40 690            5
 140    904         BL    *&8                                             5  0904  B 916 T              5
 141    909         MCW   IMOD,NUMWID  NUMWID IS MAX(IMOD,MANTIS&4)       7  0909  M 690 N40            6
 142    916  LOOP   C     X2,SX3                                          7  0916  C 094 N34            6
 143    923         BE    ALMOST                                          5  0923  B S21 S              6
 144    928         MCW   WORK,WORK-1  FILL WORK WITH RECORD MARKS        7  0928  M M94 M93            6
 145    935  GETLES BCE   GOTLES,2&X2,<                                   8  0935  B 959 0!2 <          6
 146    943         SBR   X2                                              4  0943  H 094                6
 147    947         BCE   ENDSTM,1&X2,}                                   8  0947  B S10 0!1 } GMARK    7
```

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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
148    955          B     GETLES                                       4  0955  B 935               7
149    959  GOTLES  MN    4&X2,W3                                      7  0959  D 0!4 N45           7
150    966          MN                                                 1  0966  D                   7
151    967          MCW   KZERO                                       4  0967  M N46               7
152    971          BWZ   ZONEX3,4&X2,2                              8  0971  V |16 0!4 2         7
153    979          A     KP100,W3                                   7  0979  A N49 N45           7
154    986          BWZ   ZONEX3,4&X2,S                              8  0986  V |16 0!4 S         8
155    994          A     KP100,W3                                   7  0994  A N49 N45           8
156  1 001          BWZ   ZONEX3,4&X2,K                              8  1001  V |16 0!4 K         8
157  1 009          A     KP100,W3                                   7  1009  A N49 N45           8
158  1 016  ZONEX3 MCW   W3,X3  4&X2 & &100*ZONE TO X3              7  1016  M N45 099           8
159  1 023          A     X3                                         4  1023  A 099               9
160  1 027          A     W3,X3  TIMES 3                             7  1027  A N45 099           9
161  1 034          BCE   GOTASG,5&X2,#                             8  1034  B |60 0!5 #         9
162  1 042          MCW   WRKBOT&X3,X1                               7  1042  M T?5 089           9
163  1 049          MCW   RM,WRKMID&X1                               7  1049  M N50 LS8           9
164  1 056          B     NOTASG                                     4  1056  B |89               9
165  1 060  GOTASG MCM   WRKMID&1                                    4  1060  P L29              10
166  1 064          SAR   X1                                         4  1064  Q 089              10
167  1 068          MA    A13671,X1                                  7  1068  # N53 089          10
168  1 075          MCW   *-6,WRKMID&X1                              7  1075  M |75 LS8          10
169  1 082          MCW   X1,WRKBOT&X3                              7  1082  M 089 T?5          10
170  1 089  NOTASG ZA    X1,W7-4                                    7  1089  ? 089 N56          10
171  1 096          M     NUMWID,W7                                  7  1096  @ N40 N60          11
172  1 103          SW    W7-4                                       4  1103  , N56              11
173  1 107          MN    W7,4&X2  CONVERT W7 TO MACHINE ADDRESS     7  1107  D N60 0!4          11
174  1 114          MN                                               1  1114  D                  11
175  1 115          MN                                               1  1115  D                  11
176  1 116          SAR   *&4                                       4  1116  Q /23              11
177  1 120          MCW   0,X3                                       7  1120  M 000 099          11
178  1 127          MCW   KZERO                                      4  1127  M N46              12
179  1 131          A     X3                                         4  1131  A 099              12
180  1 135          MZ    ZONES&X3,4&X2                              7  1135  Y MI8 0!4          12
181  1 142          CW                                               1  1142  )                  12
182  1 143          SBR   *&7                                       4  1143  H /53              12
183  1 147          MZ    ZONES-1&X3,0                               7  1147  Y MI7 000          12
184  1 154          CW    W7-4                                       4  1154  ) N56              12
185  1 158          MA    86,4&X2                                    7  1158  # 086 0!4          13
186  1 165          C     X1,W3B                                     7  1165  C 089 N63          13
187  1 172          BH    NOTBIG                                     5  1172  B /99 U            13
188  1 177          MCW   X1,W3B                                     7  1177  M 089 N63          13
189  1 184          MCW   4&X2,S86                                   7  1184  M 0!4 N66          13
190  1 191          BWZ   TOOBIG,S86,2                              8  1191  V S74 N66 2        14
191  1 199  NOTBIG SBR   X2,3&X2                                    7  1199  H 094 0!3          14
192  1 206          B     GETLES                                     4  1206  B 935              14
193          *
194          * END OF STATEMENT.
195          *
196  1 210  ENDSTM SBR   X2,4&X2                                    7  1210  H 094 0!4          14
197  1 217          B     LOOP                                       4  1217  B 916              14
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

198         *
199         * ALMOST DONE
200         *
201  1 221  ALMOST  MCW   SX2,X3                                              7  1221  M N31 099           14
202  1 228          MCW   SX1,X1                                              7  1228  M N37 089           15
203  1 235          C     0&X1                                                4  1235  C 0|0               15
204  1 239          C                                                         1  1239  C                   15
205  1 240          SAR   X1                                                  4  1240  Q 089               15
206  1 244          MCW   S86,86                                              7  1244  M N66 086           15
207         *
208  1 251  DONE    BSS   SNAPSH,D                                           5  1251  B 333 D             15
209  1 256          SBR   CLEARL&3,GMWM                                       7  1256  H 710 O10           15
210  1 263          LCA   IO2,PHASID                                          7  1263  L N73 110           16
211  1 270          B     LOADNX                                              4  1270  B 700               16
212         *
213         * PROGRAM IS TOO BIG
214         *
215  1 274  TOOBIG  BW    NOTBIG,PRINTD                                       8  1274  V /99 M95 1         16
216  1 282          CS    332                                                 4  1282  / 332               16
217  1 286          CS                                                        1  1286  /                   16
218  1 287          MCW   ERROR2,270                                          7  1287  M O09 270           16
219  1 294          W                                                         1  1294  2                   16
220  1 295          SW    GLOBER,PRINTD                                       7  1295  , 184 M95           17
221  1 302          B     NOTBIG                                              4  1302  B /99               17
222         *
223  1 305  WRKBOT  EQU   *                                                      1305
224  1 355          DCW   @                                             @    50  1355                      19
225                ORG   2329                                                        2329
226  2 328  WRKMID  EQU   *                                                      2328
227  2 378          DCW   @                                             @    50  2378                      21
228  2 428          DC    @                                             @    50  2428                      23
229  2 478          DC    @                                             @    50  2478                      25
230  2 494  WORK    DC    @               |@                                  16  2494                      25
231  2 495  PRINTD  DC    @ @  WM MEANS *TOO BIG* MESSAGE HAS BEEN PRINTED     1  2495                      25
232  2 497  KB9     DCW   @ 9@                                                2  2497                      25
233  2 498  ZONES   EQU   *&1                                                    2498
234  2 528          DCW   @9Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@                  31  2528                      26
235  2 531  SX2     DCW   #3                                                  3  2531                      26
236  2 534  SX3     DCW   #3                                                  3  2534                      26
237  2 537  SX1     DCW   #3                                                  3  2537                      27
238  2 540  NUMWID  DCW   #3                                                  3  2540                      27
239  2 541  KPZERO  DCW   @?@                                                 1  2541                      27
240  2 542  KP2     DCW   &2                                                  1  2542                      27
241  2 545  W3      DCW   #3                                                  3  2545                      27
242  2 546  KZERO   DCW   0                                                   1  2546                      27
243  2 549  KP100   DCW   &100                                               3  2549                      27
244  2 550  RM      DCW   @|@                                                 1  2550                      28
245  2 553  A13671  DSA   13671                                               3  2553  W7A                 28
246  2 560  W7      DCW   #7                                                  7  2560                      28
247  2 563  W3B     DCW   #3                                                  3  2563                      28
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
248  2 566  S86    DCW   #3                                                3  2566                      28
249  2 573  IO2    DCW   @I/O TWO@                                         7  2573                      28
250  2 609  ERROR2 DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@           36  2609                      29
251  2 610  GMWM   DCW   @}@                                               1  2610             GMARK    29
252                ORG   201                                                      0201
253    203         DSA   LOADDD    LOAD ADDRESS FOR CARD-TO-TAPE PROGRAM   3  0203  838                30
254                EX    BEGINN                                                   B 838                 31
255                END                                                            / 000 080
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SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
A13671	2553	ALMOST	1221	BEGINN	838	CLEARL	707	DONE	1251	ENDSTM	1210	ERROR2	2609
GETLES	935	GLOBER	184	GMWM	2610	GOTASG	1060	GOTLES	959	IMOD	690	IO2	2573
KB9	2497	KP100	2549	KP2	2542	KPZERO	2541	KZERO	2546	LOADDD	838	LOADNX	700
LOOP	916	MANTIS	692	NOTASG	1089	NOTBIG	1199	NUMWID	2540	PHASID	110	PRINTD	2495
RM	2550	S86	2566	SNAPSH	333	SX1	2537	SX2	2531	SX3	2534	TOOBIG	1274
W3	2545	W3B	2563	W7	2560	WORK	2494	WRKBOT	1305	WRKMID	2328	X1	89
X2	94	X3	99	ZONES	2498	ZONEX3	1016						